

wherein a plasma is produced in said processing vessel by said microwaves introduced from said antenna.

3. (Amended) A microwave plasma processing system as set forth in claim 1, wherein said terminal end portion of each of said antenna waveguides of said antenna is closed with a conductor.

4. (Amended) A microwave plasma processing system as set forth in claim 1, wherein said terminal end portion of each of said antenna waveguides of said antenna is closed with a microwave absorber.

6. (Amended) A microwave plasma processing system as set forth in claim 1, wherein said terminal end portion of said connecting waveguide is closed with a conductor.

7. (Amended) A microwave plasma processing system as set forth in claim 1, wherein said terminal end portion of said connecting waveguide is closed with a microwave absorber.

8. (Amended) A microwave plasma processing system comprising:
a processing vessel having a microwave transmittable top wall;
an antenna for introducing microwaves into said processing vessel, mounted on said top wall of said processing vessel and having a plurality of substantially ring-shaped antenna waveguides which are substantially concentrically arranged, each of said antenna waveguides comprising a proximal end portion, a terminal end portion, and a rectangular waveguide having a bottom wall in which a plurality of slots are formed at intervals;

a microwave supply source for supplying said microwaves to said antenna; and

a connecting waveguide for connecting said microwave supply source to said proximal end portion of each of said antenna waveguides,

wherein a plasma is produced in said processing vessel by said microwaves introduced from said antenna

10. (Amended) A microwave plasma processing system as set forth in claim 8, wherein said terminal end portion of each of said antenna waveguides of said antenna is closed with a conductor.

11. (Amended) A microwave plasma processing system as set forth in claim 8, wherein said terminal end portion of each of said antenna waveguides of said antenna is closed with a microwave absorber.

13. (Amended) A microwave plasma processing system as set forth in claim 12, wherein said terminal end portion of said connecting waveguide is closed with a conductor.

14. (Amended) A microwave plasma processing system as set forth in claim 12, wherein said terminal end portion of said connecting waveguide is closed with a microwave absorber.

15. (New) A microwave plasma processing system comprising:

a processing vessel;

an antenna for introducing microwaves into the processing vessel, having a plurality of substantially ring-shaped antenna waveguides, each of the antenna waveguides comprising a proximal end portion and a terminal end portion;

a microwave supply source for supplying the microwaves to the antenna; and

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a connecting waveguide for connecting the microwave supply source to each of the antenna waveguides, the connecting waveguide having a closed terminal end portion and a plurality of side apertures for supplying the microwaves to each of the antenna waveguides.

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16. (New) A microwave plasma processing system as set forth in claim 15, wherein each of the plurality of apertures is connected to the proximal end portion of each antenna waveguide.

Sub
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17. (New) A microwave plasma processing system as set forth in claim 15, wherein each of the antenna waveguides includes a rectangular waveguide having a bottom wall in which a plurality of slots are formed at intervals.

18. (New) A microwave plasma processing system as set forth in claim 15, wherein the connecting waveguide extends to the proximal end portion of innermost one of the antenna waveguides in a substantially radial direction with respect to each of the antenna waveguides.

19. (New) A microwave plasma processing system as set forth in claim 15, wherein the terminal end portion of each of the antenna waveguides is closed with a conductor.

20. (New) A microwave plasma processing system as set forth in claim 15, wherein the terminal end portion of each of the antenna waveguides is closed with a microwave absorber.

IN THE DRAWINGS:

Subject to the approval of the Examiner, please amend the drawings as set forth in the Request for Approval of Drawing Changes submitted herewith.